

AMENDMENTS TO THE CLAIMS:

1-24. (Canceled).

25. (New) An electronic control unit for controlling an ignition timing of an internal-combustion engine, the electronic control unit being programmed to:

calculate an ignition timing value of the engine by using a first correction term proportional to a controlled variable and a second correction term proportional to an integration of differences between said controlled variable and a desired value.

26. (New) The electronic control unit as claimed in claim 1 wherein the ignition timing value IGAST is calculated by the following expression:

$$\text{IGAST} = -K_p \times \text{NE} - K_i \times \Sigma(\text{NE} - \text{NOBJ}) + \text{IGINT}$$

where K_p is a correction coefficient for a proportional term, NE is a rotational speed of the engine, K_i is a correction coefficient for a integral term, NOBJ is a desired rotational speed of the engine, and IGINT is a constant.

27. (New) The electronic control unit as claimed in claim 2, further comprising a detector for detecting a rotational speed of the engine, said rotational speed being the controlled variable and the desired value being a target rotational speed.

28. (New) The electronic control unit as claimed in claim 2, wherein the electronic control unit is configured to compare an ignition timing value obtained by a feed-forward operation based on conditions of the engine and the ignition timing value obtained by said expression, and to use the smaller timing value for controlling the ignition timing of the engine.

29. (New) The electronic control unit as claimed in claim 4 wherein the value of the ignition timing value that is obtained by said expression is used for controlling the

ignition timing immediately after the engine starts.

30. (New) An electronic control system for controlling an ignition timing of an internal-combustion engine, comprising:

means for calculating an ignition timing value of the engine by using a first correction term proportional to a controlled variable and a second correction term proportional to an integration of differences between said controlled variable and a desired value.

31. (New) The electronic control system as claimed in claim 6 wherein the ignition timing value IGAST is calculated by the following expression:

$$\text{IGAST} = -K_p \times \text{NE} - K_i \times \Sigma(\text{NE} - \text{NOBJ}) + \text{IGINT}$$

where K_p is a correction coefficient for a proportional term, NE is a rotational speed of the engine, K_i is a correction coefficient for a integral term, NOBJ is a desired rotational speed of the engine, and IGINT is a constant.

32. (New) A method for controlling an ignition timing of an internal-combustion engine, comprising:

calculating an ignition timing value of the engine by using a first correction term proportional to a controlled variable and a second correction term proportional to an integration of differences between said controlled variable and a desired value.

33. (New) The method as claimed in claim 8, wherein the ignition timing value IGAST is calculated by the following expression:

$$\text{IGAST} = -K_p \times \text{NE} - K_i \times \Sigma(\text{NE} - \text{NOBJ}) + \text{IGINT}$$

where K_p is a correction coefficient for a proportional term, NE is a rotational speed of the engine, K_i is a correction coefficient for a integral term, NOBJ is a desired rotational

speed of the engine, and IGNT is a constant.

34. (New) A computer readable medium comprising a computer program which is configured to cause a processor to execute a function of controlling an ignition timing of an internal-combustion engine, said program comprising:

a computer program code for calculating an ignition timing value of the engine by using a first correction term proportional to a controlled variable and a second correction term proportional to an integration of differences between said controlled variable and a desired value.

35. (New) The medium as claimed in claim 10, wherein the ignition timing value IGAST is calculated by the following expression:

$$IGAST = -K_p \times NE - K_i \times \Sigma(NE - NOBJ) + IGINT$$

where K_p is a correction coefficient for a proportional term, NE is a rotational speed of the engine, K_i is a correction coefficient for an integral term, $NOBJ$ is a desired rotational speed of the engine, and $IGNT$ is a constant.